Patent
Attorney's Docket No. 033275-214

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of	
THOMAS BAUMANN, et al.	Group Art Unit: Unassigned
Application No.: Unassigned	Examiner: Unassigned
Filed: May 11, 2001	
For: INSULATION OF STATOR WINDINGS WITH SHRINK-ON SLEEVES	

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to examination of the above-captioned patent application, it is requested that the following amendments be entered.

IN THE CLAIMS:

Please replace Claims 1-17 as follows.

1. (Amended) Method for producing an insulated stator winding for rotating electrical machines, in particular, direct current machines and alternating current machines, wherein said insulated stator winding is constructed of at least one electrically conductive conductor bar with a rectangular cross-section, whereby at least one electrically insulating shrink-on sleeve with a rectangular cross-section is applied to the periphery of the conductor bar and shrunk onto the conductor bar.

2. (Amended) Method as claimed in Claim 1, wherein the shrink-on sleeve is mechanically dilated in its cold state and applied around the outer periphery of a support sleeve before the support sleeve surrounded by the shrink-on sleeve is pulled over the conductor bar.

3. (Amended) Method as claimed in Claim 2, wherein after the support sleeve surrounded by the shrink-on sleeve is applied to the conductor bar, the support sleeve between the shrink-on sleeve and the conductor bar is removed, in particular, by a helical opening of the support sleeve.

4. (Amended) Method as claimed in Claim 2, wherein the support sleeve is a meltable, in particular conductive polymer, whereby after application of the support sleeve surrounded by the shrink-on sleeve onto the conductor bar the melting of the support sleeve is initiated by introducing heat.

5. (Amended) Method as claimed in Claim 1, wherein a shrink-on sleeve of a hot-shrinking material is used and is shrunk under the effect of heat onto the conductor bar.

6. (Amended) Method as claimed in Claim 1, wherein the shrink-on sleeve is pulled in the cold state over the conductor bar, whereby the sleeve is dilated with compressed air.

7. (Amended) Method as claimed in Claim 1, wherein the shrink-on sleeve is constructed of several radially superimposed layers with different properties.

8. (Amended) Method as claimed in Claim 7, wherein the shrink-on sleeve is produced by co-extrusion, blow molding, or injection molding.

9. (Amended) Method as claimed in Claim 1, wherein a plurality of shrink-on sleeves and/or sleeves with different properties are applied around the periphery of the conductor bar.

10. (Amended) Method as claimed in Claim 1, wherein the shrink-on sleeve is provided at its contact surfaces with the conductor bar with a thermally stable adhesive.

11. (Amended) Method as claimed in Claim 1, wherein the shrink-on sleeve is constructed of an extruded elastomer.

12. (Amended) Method as claimed in Claim 1, wherein the conductor bar surrounded by the shrink-on sleeve is bent with a bending device into the shape suitable for the stator.

13. (Amended) Method as claimed in Claim 1, wherein conductor bars consisting of individual conductors are used, whereby the individual conductors preferably have a rectangular cross-section.

14. (Amended) Method as claimed in Claim 13, wherein the individual conductors are temporarily connected with each other.

15. (Amended) Method as claimed in Claim 13, wherein the conductor bars are not Roebel-transposed in the area of the involute.

16. (Amended) Shrink-on sleeve for encasing conductor bars, wherein the shrink-on sleeve has a rectangular internal cross-section.

17. (Amended) Shrink-on sleeve as claimed in Claim 16, wherein the shrink-on sleeve is placed around a support sleeve.

REMARKS

By way of the foregoing amendments to the claims, Claims 1-17 have been amended to delete the multiple dependencies and reference numerals. These changes have been made in accordance with 37 C.F.R. § 1.121 as amended on November 7, 2000. Marked-up versions of Claims 1-17 indicating the changes accompany this Preliminary Amendment.

Early and favorable consideration with respect to this application is respectfully requested.

Should any questions arise in connection with this application, the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

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Date: May 11, 2001

033275-214

Attachment to Preliminary Amendment dated May 11, 2001

Marked-up Claims 1-17

1. (Amended) Method for producing an insulated stator winding for rotating electrical machines, in particular, direct current machines and alternating current machines, [where] wherein said insulated stator winding is constructed of at least one electrically conductive conductor bar with a rectangular cross-section, whereby at least one electrically insulating shrink-on sleeve with a rectangular cross-section is applied to the periphery of the conductor bar and shrunk onto the conductor bar.

2. (Amended) Method as claimed in Claim 1, [characterized in that] wherein the shrink-on sleeve is mechanically dilated in its cold state and applied around the outer periphery of a support sleeve before the support sleeve surrounded by the shrink-on sleeve is pulled over the conductor bar.

3. (Amended) Method as claimed in Claim 2, [characterized in that] wherein after the support sleeve surrounded by the shrink-on sleeve is applied to the conductor bar, the support sleeve between the shrink-on sleeve and the conductor bar is removed, in particular, by a helical opening of the support sleeve.

4. (Amended) Method as claimed in Claim 2, [characterized in that] wherein the support sleeve is a meltable, in particular conductive polymer, whereby after application of the

Attachment to Preliminary Amendment dated May 11, 2001

Marked-up Claims 1-17

support sleeve surrounded by the shrink-on sleeve onto the conductor bar the melting of the support sleeve is initiated by introducing heat.

5. (Amended) Method as claimed in Claim 1, [characterized in that] wherein a shrink-on sleeve of a hot-shrinking material is used and is shrunk under the effect of heat onto the conductor bar.

6. (Amended) Method as claimed in Claim 1, [characterized in that] wherein the shrink-on sleeve is pulled in the cold state over the conductor bar, whereby the sleeve is dilated with compressed air.

7. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [characterized in that] wherein the shrink-on sleeve is constructed of several radially superimposed layers with different properties.

8. (Amended) Method as claimed in Claim 7, [characterized in that] wherein the shrink-on sleeve is produced by co-extrusion, blow molding, or injection molding.

Attachment to Preliminary Amendment dated May 11, 2001

Marked-up Claims 1-17

9. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [characterized in that] wherein a plurality of shrink-on sleeves and/or sleeves with different properties are applied around the periphery of the conductor bar.

10. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [characterized in that] wherein the shrink-on sleeve is provided at its contact surfaces with the conductor bar with a thermally stable adhesive.

11. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [characterized in that] wherein the shrink-on sleeve is constructed of an extruded elastomer.

12. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [characterized in that] wherein the conductor bar surrounded by the shrink-on sleeve is bent with a bending device into the shape suitable for the stator.

13. (Amended) Method as claimed in [one of the previous Claims] Claim 1, [whereby] wherein conductor bars consisting of individual conductors are used, whereby the individual conductors preferably have a rectangular cross-section.

Attachment to Preliminary Amendment dated May 11, 2001

Marked-up Claims 1-17

14. (Amended) Method as claimed in Claim 13, [whereby] wherein the individual conductors are temporarily connected with each other.

15. (Amended) Method as claimed in [one of Claims] Claim 13 [or 14], [whereby] wherein the conductor bars are not Roebel-transposed in the area of the involute.

16. (Amended) Shrink-on sleeve for encasing conductor bars [2], [whereby] wherein the shrink-on sleeve [(64)] has a rectangular internal cross-section.

17. (Amended) Shrink-on sleeve as claimed in Claim 16, [whereby] wherein the shrink-on sleeve [(64)] is placed around a support sleeve [(62)].